



I.

executive summary

INTRODUCTION

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) for six Southern California counties. SCAG's responsibilities include development of a coordinated and cohesive long-range transportation plan that addresses the needs of the vast metropolitan area. The 2001 Regional Transportation Plan (RTP) represents the culmination of more than two years of work involving dozens of public agencies, 184 cities, hundreds of local, county, regional and state officials, the business community, environmental groups, non-profit organizations and a broad-based public outreach effort.

The SCAG Region is the largest metropolitan planning area in the United States, encompassing 38,000 square miles, six counties and 184 cities. The Region is loosely divided into 14 subregions and is one of the largest concentrations of population, employment, income, business, industry and finance in the world. The six-county SCAG Region is home to more than 17 million people, nearly half of the population of the State of California. The Gross National Product (GNP) equivalent for the Region shows that Southern California has the 12th highest GNP in the world with 7.4 million jobs, while the State as a whole has an equivalent of the 6th highest GNP in the world.

The 2001 RTP is the required three-year update to the 1998 Regional Transportation Plan (98 RTP), adopted by the SCAG Regional Council in April 1998. Concurrent with the adoption of the 1998 RTP, the Regional Council directed staff to work toward development of regional consensus on a number of key issues in the 2001 RTP. The key issues were:

- ▶ growth forecasts
- ▶ long-term transportation financing needs
- ▶ the future regional aviation system

The RTP presents an assessment of the overall growth and economic trends in the SCAG Region for the years 2001-2025 and provides strategic direction for investments during this time period. The RTP is a critical document in that it is necessary to assure federal and state funding. It should serve as a catalyst for linking the various transportation agency investments within the SCAG Region to provide a cohesive, balanced and multi-modal transportation system that addresses regional goals and is consistent with federal and state requirements. Given the size and diversity of the SCAG Region, the development of consensus on future transportation investments among stakeholders is truly a challenge.

This Executive Summary provides an overview of the 2001 RTP, including future trends affecting the regional transportation system, recommendations for addressing long-term financing needs and strategic investments that will perform best to meet the mobility, accessibility and other goals of the Region's people and businesses.

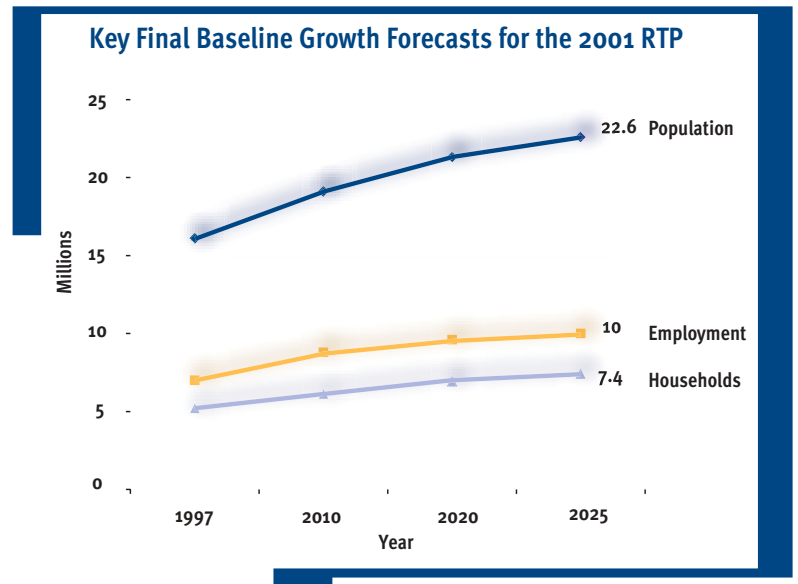


CHALLENGES AND OPPORTUNITIES

While Southern California is one of the most prosperous and productive metropolitan areas in the world, the Region faces tremendous challenges as we look toward the future. Population is expected to increase by 40 percent from 1997 to 2025, employment is expected to increase by 43 percent and households by 30 percent. Figure 1.1 shows the key growth assumptions used in the 2001 RTP.

Not only is the population growing but the composition of the Region's population is also changing. Significant trends include the aging of the population and the growing proportion of Hispanic and Asian/Pacific Islanders. The share of elderly persons in the Region, aged 65 and above, is expected to rise to 15.4 percent in 2025 from 9.9 percent in 1997. The Hispanic share of the regional population is projected to surpass that of non-Hispanic whites by 2003 and to reach 51 percent by 2025. These two factors will result in changing, but yet unknown, travel patterns and new mobility needs for large portions of the population.

Figure 1.1



The Internet economy and e-commerce will also affect almost every aspect of our lives and can potentially affect land use patterns, air quality, traffic congestion and local sales tax revenues (which currently support transportation investment) as consumer and travel behavior changes. Taken together, these trends—population and job growth, aging population and e-commerce—pose unprecedented challenges and uncertainties in the development of the 2001 RTP.

In addition to accommodating the explosive growth projected for the Region and adapting to the Internet economy, meeting other regional transportation goals is a formidable task. These include improving transportation mobility for all people and enhancing the movement of goods within the subregions and the Region. In addition, we must ensure that transportation investments are cost-effective, protect the environment, promote energy efficiency and enhance the quality of life.

With challenges come opportunities. In updating the RTP, SCAG established an unprecedented, inclusive and ongoing planning process that brought together public agencies and private entities, environmental and community groups and the public to ensure that all stakeholders had opportunities to actively participate in setting the Region's future transportation investment priorities.

KEY CHANGES SINCE ADOPTION OF THE 1998 RTP

Transportation planning is a continuous process and the following elements of the Plan have changed since the adoption of the 1998 RTP. Each of these areas is discussed briefly below and in greater detail in various sections of the RTP.

- ▶ Growth Forecasts
- ▶ Financial Assumptions
- ▶ Regional Aviation System
- ▶ Regional Transit Services
- ▶ Transportation and Air Quality Conformity
- ▶ Environmental Justice

GROWTH FORECASTS

The growth forecasts that were made in 1998 were overstated for 2020, which was the final year of that plan. Nevertheless, tremendous growth is projected over the next twenty-five years, with an expected increase of almost 7 million people, 3 million jobs and 2.2 million households. As discussed earlier in this Executive Summary, the projected growth in the Region is one of the biggest challenges that SCAG will face as steward of the metropolitan transportation system. Figure 1.1 shows the current assumptions for growth in the SCAG Region over the life of the 2001 RTP.



FINANCIAL ASSUMPTIONS

The Long-Range Transportation Finance Task Force was created to develop financial assumptions for the 2001 RTP. The need to change previous assumptions became readily apparent given events that transpired since the 1998 RTP was adopted. Some conditions considered are:

- ▶ The sunset of local transportation sales taxes in Imperial (2010), Orange (2011), San Bernardino (2010) and Riverside (2009) counties during the time frame of the RTP (note: Los Angeles County has a permanent sales tax dedicated to transportation; it does not sunset like the other “self-help” counties sales taxes. Ventura County does not have a sales tax dedicated to transportation)
- ▶ The projected loss of gasoline tax revenues due to inflation, fuel efficiency and alternative fuels
- ▶ Increases in the projected costs of operating and maintaining the existing regional transportation system

Taken together, these factors influenced the availability of future revenues to fund the RTP. After thorough analyses of many different options to raise needed revenues, the Task Force developed a funding strategy that seeks to maintain transportation revenues that the Region could potentially lose in the years to come. The funding strategy is discussed later in this Executive Summary and in detail in Chapter VI of the Plan.

Table 1.1

REGIONAL AVIATION SYSTEM

The 2001 RTP proposes a decentralized regional aviation system. The Plan proposes development of aviation facilities where unmet demand is greatest and also where population growth is expected to be significant, in order to meet demand and reduce impacts. The Plan also proposes various strategies to promote use of under-utilized facilities, including high-speed rail linkages between airports and market incentives.

In the adopted scenario, LAX is constrained to its existing physical capacity, estimated at 78 MAP. Burbank (BUR), John Wayne (SNA) and Long Beach (LGB) are constrained to their legal or existing physical capacities. Substantial growth is forecast at El Toro (ELT) and Ontario (ONT). Market incentives have been included to disperse demand to outlying airports to the extent possible. These outlying airports include Palmdale (PMD), San Bernardino International Airport (SBD), Southern California Logistics Airport (SCI) and March Global Port (MAR).

2001 RTP REGIONAL AVIATION SYSTEM			
	Passengers (in millions)	Air Cargo (thousands of tons)	Operations (in thousands)
BUR	9.4	73.2	112
ELT	29.7	1693.8	321.1
SNA	8.4	25.3	120.7
LAX	78	2975.8	660.3
LGB	3	63	43.6
MAR	1.7	1079.5	44.4
ONT	30	2246	366.4
PSP	2.9	19.9	44.8
PMD	1.7	124.4	28.4
MUG	0	0	0
SUB	1.8	878.9	40.4
SCI	0.8	320.3	21
TOTAL	167	9500	1803

TRANSIT SERVICES

The 1998 RTP-projected substantial savings could be realized through restructuring transit services and implementing a vast network of privately funded Smart Shuttles—demand-responsive services. While Smart Shuttles can play a role in the future provision of transit services, the pilot projects have been implemented and demonstrate that this will largely be a niche market. Therefore, we need to change our assumptions regarding the financing and viability of such services and the role they will play in the future. The Transit Corridor Task Force and the Regional Transit Task Force discussed the future of transit at length and recommended a set of investments that, if successful, will enable transit to retain its market share in 2025—equivalent to 34.9 trips per person per year. Given projected population growth of 40 percent, achieving this mode split is an ambitious goal and would result in approximately 800 million new annual transit trips in the Region. Transit investments are discussed further in this Executive Summary and in detail in Chapter V.

TRANSPORTATION AND AIR QUALITY CONFORMITY

Under the federal regulations and in the federally designated non-attainment and maintenance areas, the regional transportation plans, programs and projects must comply with the requirements of the Federal Clean Air Act (CAA) as reflected in the Transportation Conformity Rule.

Emissions attributed to on-road mobile sources can have adverse impacts on health. On-road motor vehicles have become one of the major contributing sources for criteria pollutants. Major criteria pollutants include volatile organic compounds (VOC), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matters in size of 10 microns or less (PM₁₀) and nitrogen dioxide (NO₂). To reduce the adverse impact of these pollutants on health, the Environmental Protection Agency (EPA) designates the non-attainment areas by pollutant and the CAA sets the specific attainment date by area by pollutant. When a non-attainment area achieves its attainment goal, then EPA will re-designate it as a maintenance area for the next 10-20 years.

The SCAG Region has one or more federally designated non-attainment and /or maintenance areas, with the exception of the eastern part of Riverside County¹. Thus, the RTP is subject to transportation conformity analysis and determination.

The conformity status of the 1998 RTP expires on June 9, 2001. The 2001 RTP and the associated conformity analysis were developed to replace the 1998 RTP.

Since the 1998 RTP, two transportation and air quality related events have had a temporary impact on the transportation planning processes—they adversely impacted the conformity findings of the South Coast Air Basin (SCAB) portion of the 2000/02-2005/06 Regional Transportation Improvement Program (2000 RTIP). These two events were:

- Replacement of the two segments of the Metro RedLine with the Rapid Bus, Rapid Transit and Light Rail projects in Los Angeles County was required. The rail and transit projects are categorically identified as transportation control measure (TCM) projects in the 1997 Ozone State Implementation Plan (SIP) developed for the SCAB.
- The California Air Resources Board (ARB) has recognized the need to remedy the SIP shortfall for those control measures in which the state was responsible for implementation, including the Inspection and Maintenance (I/M) Program. The SCAB portion of the Region was more affected by the SIP shortfalls than other federal non-attainment areas in the SCAG Region.

These two issues have been resolved and no longer affect the conformity analysis of the 2001 RTP.

Since the April 1998 adoption of the 1998 RTP by the Regional Council, the Transportation Conformity Rule was revised by a federal court ruling. The U.S. Court of Appeals March 2, 1999 ruling in *EDF v. EPA* mandated that emissions budgets approved or found adequate by the Environmental Protection Agency (EPA) can be used for conformity determination. Under the Transportation Conformity Rule, the 2001 RTP must pass the following four tests to continue receiving transportation funds from the federal sources:

- Regional Emission Analysis
- Timely Implementation of Transportation Control Measures (TCMs) Analysis

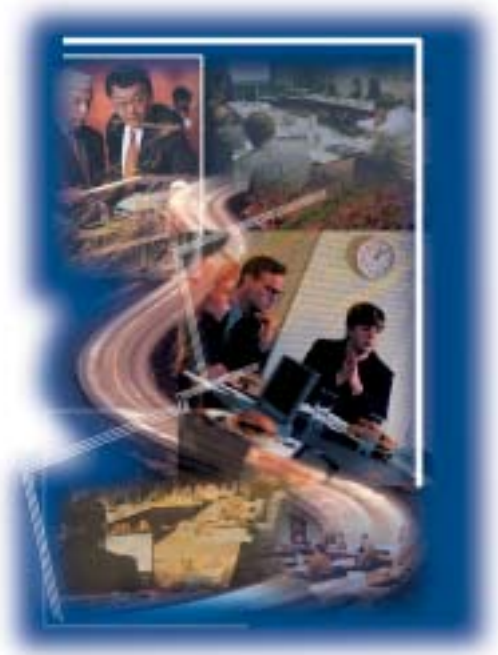
- Fiscal Constraint Demonstration
- Interagency Consultation and Public Involvement Process

Generally, to meet the first two tests—the Regional Emission Analysis and the Timely Implementation of TCMs Analysis—SCAG must explicitly demonstrate that the regional emissions resulting from implementation of the 2001 RTP policies, programs and projects are consistent with and conform to the applicable State Implementation Plan's (SIP's) goals and objectives for air quality.

The 2001 RTP is consistent with all federal requirements and conforms to the respective applicable SIPs developed for the non-attainment and maintenance areas in the SCAG Region.

In response to the federal agencies' request, the conformity requirements, Regional Emissions Analysis, Timely Implementation of TCMs and the associated conformity findings are addressed in a separate report titled "Transportation Conformity Report," which is included in the Technical Appendix. The other required conformity tests—the Fiscal Constraint Demonstration and the Interagency Consultation and Public Involvement Process—are addressed in the Financial Plan and in the Public Involvement and Environmental Justice documents respectively.

The 2001 RTP and the associated appendices—the Transportation Conformity Report, the Financial Plan and the Public Involvement and Environmental Justice document—collectively form a set of documentation for the conformity determination of the 2001 RTP.



ENVIRONMENTAL JUSTICE

Since the 1998 RTP was adopted, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have renewed their commitment to assure environmental justice in the programs they fund. This was done to ensure compliance with Title VI of the Civil Rights Act of 1964 and the President's 1994 Executive Order on Environmental Justice. SCAG seeks to ensure that the RTP's benefits and burdens are not inequitably distributed across groups based on race, income, age or disability through a two-part approach adopted by the TCC in October 2000. The program includes public outreach efforts to assure that all members of the public have the opportunity to meaningfully participate in the planning process. These efforts specifically target minority and low-income communities throughout the Region and are intended to listen to and address their concerns. The analysis component of the Environmental Justice procedures assesses the geographic distribution of environmental impacts and a calculation of the net benefits of the RTP, including accessibility and mobility. Chapter VII of the RTP includes the results of these analysis.

THE PLAN UPDATE PROCESS

STAKEHOLDER INVOLVEMENT

To meet the three-year RTP update schedule required by the Transportation Equity Act for the 21st Century (TEA-21) and to address key issues as directed by the Regional Council, SCAG initiated a bottom-up collaborative planning process that included the formation of twelve task forces and numerous subcommittees. Each task force had a specific mission and addressed issues in as much detail as time allowed, with the goal of making recommendations to SCAG's Transportation and Communications Committee (TCC), which then provided overall policy direction to the development of the RTP. Task force membership included hundreds of elected officials, local and regional officials, representatives of county transportation commissions (CTCs) and the subregions, representatives of federal and state agencies and representatives of community groups and environmental organizations. Hundreds of meetings were held over the past two years to focus on specific modes, investment strategies or policies. This process helped build consensus on important issues and provided direction to the staff in preparing the 2001 RTP. A complete listing of Task Force members is provided in the Technical Appendix to the RTP.

Regional Plan Task Forces and Key Subcommittees

RTP Technical Advisory Committee (TAC)

Growth / Forecast

Long-Range Transportation Finance

Aviation

Transportation Corridors

High-Speed Rail

Regional Transit

Four Corners

Truck Lanes

Goods Movement

Modeling

Subregional Coordinators Group

PUBLIC OUTREACH

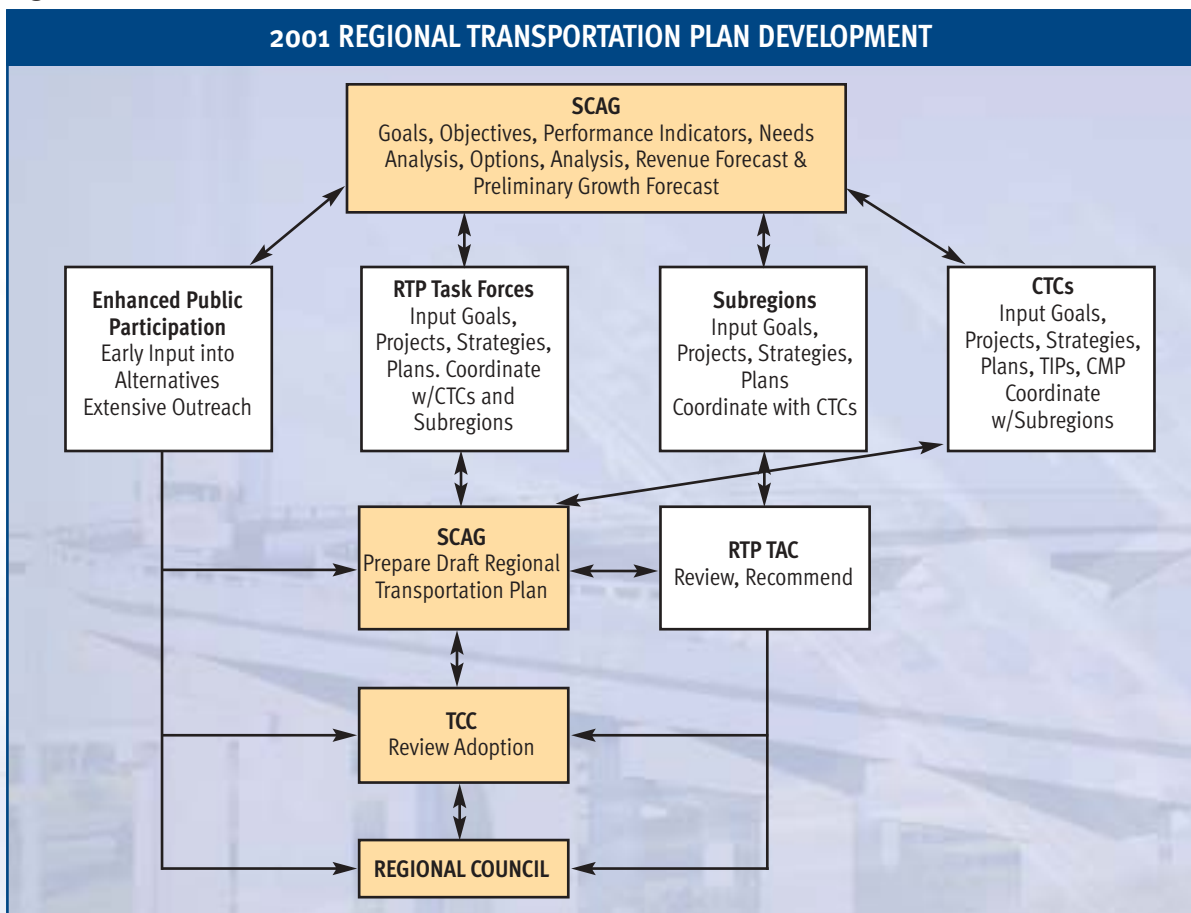
At the beginning of the 2001 RTP process, SCAG embarked on an extensive public outreach process to ensure input and community feedback as the update progressed. This effort complemented the bottom-up planning process and relied heavily on the 14 subregions within the SCAG Region. The subregions are ideally suited for public outreach as they maintain direct lines of communication with community groups, businesses, transit operators, environmental organizations, the public within their cities and local communities. In eight of the subregions, local organizations and groups of cities directly conducted the outreach process, with SCAG support. In the other six subregions SCAG provided consultant-led outreach efforts to ensure that no subregion was left out of the process. As evidence of extensive public outreach, SCAG received more than 1,500 comments on the Draft 2001 RTP and those comments were taken into consideration in the finalization of the 2001 RTP. A summary of the comments and SCAG responses can be found in the Technical Appendix to the RTP.

PERFORMANCE-BASED PLANNING

In updating the RTP, SCAG continued with its performance-based approach to transportation planning and has adopted regional goals and policies that serve as guideposts in developing the Plan. To meet the challenges of performance-based planning, SCAG developed Performance Indicators that consider transportation from a “user’s perspective.” Everyday, millions of people and thousands of businesses consider rush hour congestion, speeds, reliability of service, parking costs and other factors before making trip choices. SCAG’s Performance Indicators are based on these very same “common sense” criteria.

In order to measure progress toward achieving regional goals, SCAG developed quantifiable Performance Indicators where possible, and these form the basis upon which SCAG can measure progress. The regional goals from the 1998 RTP were updated to emphasize subregional and market-based approaches to improved mobility. Refer to Chapter III of the RTP to review the regional goals, planning policies and objectives and Performance Indicators. Figure 1.2 shows how the various elements of the transportation planning process come together in the development of the RTP.

Figure 1.2



FEDERAL AND STATE PLANNING REQUIREMENTS

In addition to the adoption of regional goals and policies, objectives and performance indicators, the RTP must meet various federal and state requirements for transportation plans in metropolitan areas. These requirements are discussed in detail in Chapter III of the RTP.

FINANCIAL RESOURCES

Concurrent with adoption of the 1998 RTP, the Regional Council directed staff to review the long-term transportation revenue assumptions and to address associated issues in the 2001 RTP. This direction led to the creation and mission of the Long-Range Transportation Finance Task Force. As a result of careful analysis and deliberation of options, the need to change the financial assumptions for the 2001 RTP became evident.

The updated revenue forecast shows that the Region would not have enough public funds to support new RTP projects. In recognizing the need for a regional funding strategy to fund new regional transportation facilities and services, the Finance Task Force identified approximately \$24 billion in additional public revenues to offset the Region's projected revenue shortfall as shown in Table 1.2.

The RTP must be fiscally constrained in accordance with federal regulations, which means that revenues must reasonably be available over the time frame of the RTP. If revenue shortfalls are anticipated and additional funding is needed, then the financial plan must also identify additional revenue streams and include a strategy for securing the revenue.

Table 1.2

REGIONAL CHECKBOOK CONSTANT 1997 DOLLARS (BILLIONS)	
Total Baseline Revenue	\$100
Public Funding Strategy	\$24
Total Revenues	\$124
RTIP & Other Commitments	\$27
Operations & Maintenance	\$64
Bonds	\$9
Baseline Costs	\$100
Net Public Funding for New RTP Projects	\$24

Table 1.3

2001 RTP PUBLIC FUNDING STRATEGY (CONSTANT 1997 \$ IN BILLIONS)	
Funding Component	\$
Continue Using Revenues from the State Sales Tax on Gasoline	6
Continue Local Transportation Sales Taxes Where Necessary	3
Adjust State Motor Vehicle Fuel Excise Tax and User-Fees to Maintain Historical Purchasing Power	15
Total	24

In August 2000, the TCC endorsed principles governing the funding strategy for the 2001 RTP Update. These principles have guided the development of the following financial assumptions, which seek to maintain particular revenue streams that the Region could potentially lose in future years:

- ▶ The state sales tax on gasoline will continue to be dedicated to transportation after 2006.
- ▶ Local transportation sales taxes are extended where necessary.
- ▶ An adjustment is made to the state motor vehicle fuel excise tax rate and user-fees to maintain historical purchasing power. This component includes the option to implement a revenue raising mechanism on alternative fuel vehicles to offset the potential loss in gasoline tax revenues.

As a result of these assumptions, the Regional Checkbook for the 2001 RTP shows \$24 billion in public revenues available for new projects as shown in Tables 1.2 and 1.3 (further discussed in Chapter V). The available revenue is the net amount after subtracting Baseline costs. Baseline costs include short-term committed projects, in addition to operations and maintenance expenses of the existing transit and roadway system. Committed projects include those in the 2000-2006 Regional Transportation Improvement Program (RTIP) and projects in the Governor's Traffic Congestion Relief Program (TCRP). Table 1.4 provides a county by county breakdown of Baseline revenues, costs and public funding strategy.

Table 1.4

2001 RTP REGIONAL CHECKBOOK BY COUNTY						
County	Baseline Revenues	Baseline Costs	Net Balance	Public Cost of New RTP Projects	Funding Shortfall	Public Funding Strategy
Imperial	\$0.78	\$0.64	\$0.14	\$0.38	\$(0.24)	\$0.24
Los Angeles	\$65.27	\$66.37	\$(1.09)	\$9.46	\$(10.55)	\$10.55
Orange	\$17.49	\$17.02	\$0.46	\$3.94	\$(3.47)	\$3.47
Riverside	\$5.91	\$6.10	\$(0.19)	\$4.20	\$(4.39)	\$4.39
San Bernardino	\$8.01	\$7.71	\$0.30	\$5.20	\$(4.90)	\$4.90
Ventura	\$2.49	\$2.30	\$0.19	\$1.15	\$(0.96)	\$0.96
Total	\$99.96	\$100.14	\$(0.18)	\$24.33	\$(24.51)	\$24.51

Notes:

- 1) Numbers may not add correctly due to rounding.
- 2) Includes revenues from the Governor's Traffic Congestion Relief Plan. Local gas tax subventions are not included in the revenue forecast, assuming that the subventions are not used for "regionally significant" projects. The EPA's use of the term "regionally significant" is intended to include those transportation projects that would have significant impacts on regional travel, emissions and air quality.
- 3) Baseline costs include current TIP (2001-2006) capital projects that are "regionally significant." Traffic Congestion Relief Plan projects are also included. Additionally, committed sales tax revenues and funds from other sources for Measure projects are included. Measure tax project costs are spread between "pay as you go" financing and debt financing. Includes anticipated new debt service issues during the RTP period. Also includes debt bonded against forecasted TCA toll revenues in Orange County. Also included are Operations and Maintenance expenses for both transit and roads, Caltrans 2000 SHOPP and transit capital replacement/rehabilitation. Forecasted transit and roadway O&M and capital replacement are assumed for the existing SCAG regional transportation infrastructure and new capital projects in the 2001/2006 RTIP. See Technical Appendix for further information.
- 4) Revenues and Costs are in constant 1997 dollars, millions.
- 5) The Region's public funding strategy does not assume the extension of Measure M in Orange County nor the imposition of a local transportation sales tax in Ventura County.

SCAG recognizes that the Region's public funding strategy would only offset about half the total cost of the new RTP projects. As Table 1.5 indicates, the new RTP projects are estimated to cost about \$44 billion. The Region's public funding strategy would offset about \$24 billion and the remaining \$20 billion gap would require innovative financing including public-private partnerships, debt financing efforts and user charges.

For example, dedicated truck lanes are assumed to be partially funded with user charges and HOT lanes will be constructed by the private sector. In addition, U.S. DOT's Transportation Infrastructure Finance and Innovation Act (TIFIA) is a program that provides federal credit assistance (e.g., direct loans, loan guarantees and lines of credit) to large-scale transportation projects of national significance (e.g., Alameda Corridor).

Table 1.5

COST OF NEW RTP PROJECTS (CONSTANT 1997 DOLLARS IN BILLIONS)	
Cost to be Funded by Public Funding Strategy	\$24
Cost to be Funded by Innovative Financing	\$20
Total Cost	\$44

STRATEGIC INVESTMENTS

As noted earlier in this Executive Summary, in adopting the 1998 RTP, the Regional Council directed staff to address three principal issues in this 2001 RTP. Those issues are:

- ▶ growth forecasts;
- ▶ long-term transportation financing needs; and
- ▶ the future regional aviation system.

Growth in the Region is inevitable. The 2001 RTP identifies investments that will help the Region accommodate growth in the most sensible way by investing strategically in programs and projects that will help shape the Region's growth along existing and improved major transportation corridors. The guiding principles used in developing the strategic investments included in this plan may be summarized in three principles: **1)** Target investments on best-performing projects, **2)** Give high priority to maintaining and operating the system and **3)** Maximize system utilization.

The investment program can be summarized as follows, with detailed discussions of investments included in Chapter V. In addition, a project listing for each county is provided in the Technical Appendix.

HIGHWAYS AND ARTERIALS

The network of highways and arterials in the SCAG Region consists of 9,000 lane miles of freeways, including 580 lane miles of High Occupancy Vehicle (HOV) lanes. In addition, there are 32,000 miles of major and minor arterials. This network of highways and arterials carries 99 percent of all trips, including trips on buses. This amounts to over 54 million vehicle trips per day on the regional highway and arterial system.

The average speed for the 24-hour period on the highway and arterial system is about 38 miles per hour. However, during the morning peak period in some of the heaviest corridors, the average travel speed is less than 20 miles per hour in the congested direction, far worse than the average system-wide speed. In fact, in 1997 the average traveler spent approximately 18 percent of travel time in congestion delay, with an average commute trip of 15 miles taking about 30 minutes. If we were to do nothing more than currently committed projects, we could experience an increase in congestion delay within the Region of over 100 percent by 2025. The aggregated daily vehicle hours spent in the Region could increase by over 50 percent to about 14 million hours and a 15 mile commute trip could take, on average, about 45 minutes compared to 30 minutes in 1997. Our investment strategy is to provide maximum relief to the most heavily traveled commute corridors.

HIGH OCCUPANCY VEHICLE LANE (HOV) GAP CLOSURES, CONNECTORS AND HOT LANES

Investments include HOV connectors, HOV gap closures and the completion of the regional HOV system. In addition, selected high occupancy toll lane (HOT lanes) projects are recommended in Orange and Riverside counties. Table 5.2 in Chapter V shows the recommended HOV Gap Closures. Table 5.3 shows the HOV connector projects and Table 5.5 shows the HOT lanes. These investments total \$1.9 billion in public costs.

MIXED-FLOW IMPROVEMENTS

Several new mixed-flow freeway lanes are proposed to close gaps, increase capacity in certain congested commute corridors and facilitate county-to-county travel, especially from population-rich to employment-rich areas. Regionally significant mixed-flow improvements are shown in Table 5.4 in Chapter V. The public costs for these projects are \$5.4 billion.

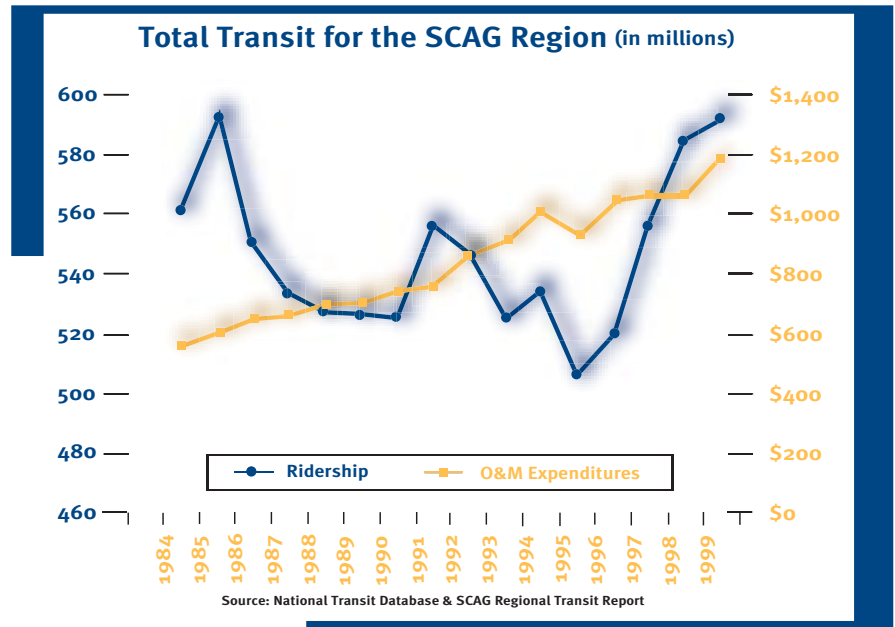
ARTERIAL INVESTMENTS

Arterials are recognized for their importance to regional mobility. Arterials account for over 65 percent of the total road network and carry 50 percent of the total traffic. Therefore, the 2001 RTP recommends substantial funding for arterial improvements beyond operations and maintenance. These investments total \$2.8 billion in public costs. Please refer to Tables 5.6 and 5.7 in Chapter V for more information about arterial investments. The 2001 RTP includes additional investments to improve arterial related travel. This includes Intelligent Transportation System (ITS) and grade separation projects where these investments would help speed traffic flow and optimize the operation of the arterial system.

REGIONAL TRANSIT

Southern California contains a vast transit network comprised of several modes of public transportation. The largest of the transit networks and backbone of the system is express and local bus service. This service provides an alternative to the auto as a means for people to get to and from work as well as make discretionary trips. The fixed guideway network includes interregional, computer, urban and light rail. Local service is coordinated with rail service to create seamless transit and help increase overall transit trips. Throughout the Region, there are smaller transit services, shuttles

Figure 1.3



and circulators, which function to provide the public with a means of transportation. These services are also great feeders for the rail system, as well as in niche markets like city centers.

Recently, the Region has seen a substantial increase in transit ridership—16 percent between 1995 and 1999. Transit ridership, though still representing a vital component of our transportation network, has steadily decreased as a percentage of all daily trips.

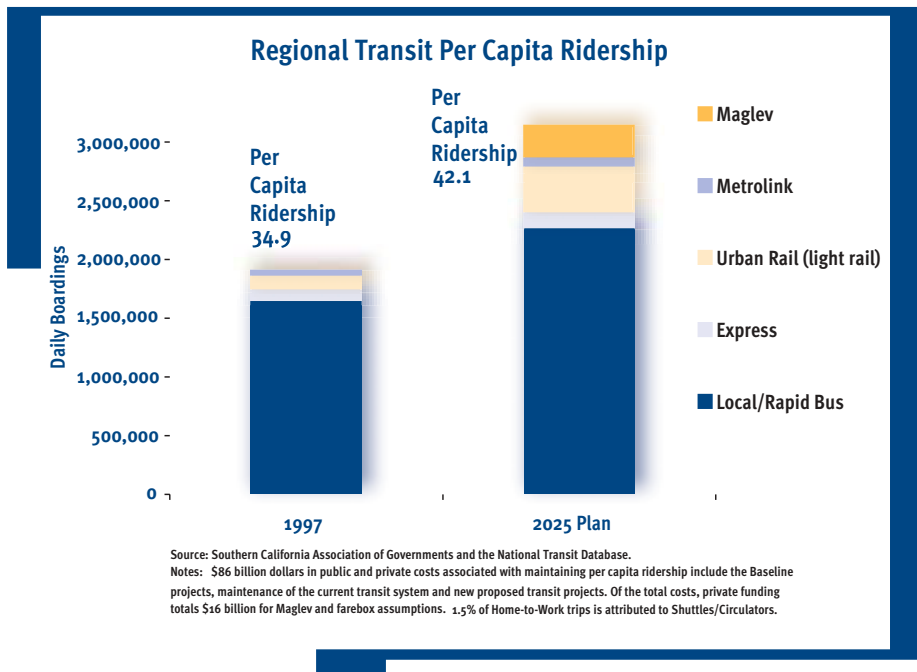
Prior to 1995, the Region's transit

ridership declined in absolute numbers, from a high in 1985 to an all time low in 1995, representing a loss of 100 million riders. The Region is just now approaching the previous ridership peak level of 1985. Many people continue to depend on reliable transit service to participate in the economic, cultural and social benefits of Southern California. An enormous challenge that we face is to deliver and improve transit service to provide both the transit-dependent population and discretionary riders with more effective and attractive service. Figure 1.3 shows the total transit ridership and investment over time for regional transit.

The 1998 RTP focused on the cost and delivery of transit services and proposed that Smart Shuttle programs could play a major role in transit delivery. We now recognize that Smart Shuttles may have a role, albeit limited, in certain niche markets. Nevertheless, the availability of travel choices, including transit, is an essential element of the RTP and the Plan recognizes the importance of transit in the Region. The goal of public transportation is to provide an attractive alternative to the use of a single occupant automobile for those who own cars and to provide needed transportation services to people who do not own a car. Public transportation strategies that are included in this plan were developed with these goals in mind. In addition to recommending new funding for operations and maintenance, this plan recommends strategic investments in the best performing transit projects, including rapid bus projects, commuter rail services, light rail and transit service expansion. The 2001 RTP also recommends the implementation of a high-speed magnetic levitation transportation (Maglev) system, provided a financing strategy can be developed.

The goal for the Region's public transportation services, which was adopted by the TCC, is to maintain the 1997 per capita ridership level for transit. This equates to 34.9 trips per person per year. Given the projected increase in population, this would mean that approximately 800 million new annual transit trips would be made in the Region in 2025. Several strategies will need to be aggressively implemented to achieve this goal. These include: significant increases in service availability such as those planned for the Metrolink commuter rail service, investing in third-tier services such as community-based transit, improved transit service management, establishing transit centers where convenient, the making of multi-modal transfers and implementing complementary transportation demand management strategies.

Figure 1.4



In addition, the highly successful Rapid Bus program of the LACMTA will be implemented on numerous heavily traveled corridors and many bus lines will be rerouted to support the existing and proposed urban and commuter rail systems. The RTP also recommends deployment of shuttles and circulators, which would also feed into the current transit system. Figure 1.4 shows the respective share of transit ridership that the proposed investments could serve in order to achieve the transit ridership goal. Specific recommendations for transit investments can be found in Chapter V of the RTP. Table 5.9 in Chapter V shows the proposed transit investments and Exhibit 5.6 shows the proposed transit corridors. Total public costs for these new investments are \$5.7 billion.

MAGLEV SYSTEM

Another important component of the transit investment strategy is the implementation of Intra-Regional High Speed Rail Maglev using magnetic levitation (Maglev) technology. This high-speed rail service would connect major activity and transportation centers in Los Angeles, Orange, Riverside and San Bernardino Counties. Maglev will increase accessibility to the Region's major activity centers and provide congestion relief. The system would be comprised of four lines. The first line will connect LAX to March Global Port by 2010. The complete system would be in place by 2025.

GOODS MOVEMENT

The ability of the SCAG Region to move goods efficiently and reliably lies at the center of our Region's future prosperity. With this in mind, the 2001 RTP recommends key investments in the major Goods Movement corridors and modes, including truck lanes, railroad grade crossing projects, ports and port access and air cargo facilities. While funding for the ports and airports projects are provided through the owners and operators of those facilities, improvements in the connections to the surface transportation system are crucial to an intermodal and seamless Goods Movement system in the future.

Truck Lanes

The 2001 RTP includes major investments totaling \$3.6 billion to improve truck movement throughout the Region, including dedicated truck lane projects in the SR-60 and I-15 corridors. In addition, several truck climbing lane projects are included in the Plan, as are studies of dedicated truck lanes on I-710 and the I-5. In addition to these

projects, the ports and airports will be making investments in their facilities to accommodate the anticipated growth in Goods Movement by trucks over the time frame of the RTP. Tables 5.10, 5.11 and 5.12 in Chapter V provide specific information on investments in truck lanes.

Railroad Grade Crossing Projects

The SCAG Region is served by two main line railroads (the Burlington Northern and Santa Fe Railway Co [BNSF] and the Union Pacific Railroad [UP]). These railroads link Southern California with other regions and provide freight rail service within California. In 1995 these railroads moved more than 91 million tons of cargo in and out of Southern California.

A total of \$1.8 billion is recommended for grade crossing improvement projects including the Orange County Gateway (Orangethorpe) Corridor Project. In addition, grade crossing projects are recommended on major railroad lines in Riverside, San Bernardino and Imperial Counties, North Los Angeles County and in the Gateway Cities, which lies at the center of regional truck movement due to its proximity to the Ports of Los Angeles and Long Beach. Table 5.13 in Chapter V shows the proposed grade crossing corridor projects.



Ports and Port Access

The three major seaports—Los Angeles, Long Beach and Hueneme—serve over 80 ocean carriers and are responsible for providing a major link between the West Coast of the United States and the Pacific Rim countries. These three ports moved more than 120 million tons of cargo in 1995 and the Ports of Long Beach and Los Angeles dominate the container trade in the Americas by shipping and receiving more than 5 million containers annually. The Ports of Los Angeles, Long Beach and Hueneme will invest over \$6 billion of port funding on rail and highway access over the next 25 years.

Other components of the Goods Movement element of the Plan include development of the Southwest Passage, a proposed major trade corridor extending from the SCAG Region east to Texas to facilitate major freight flows to and from the Pacific Rim and the NAFTA countries. The comple-

tion of the Alameda Corridor project is also included in the Plan as are the following Goods Movement investments: a major railroad main line productivity study for the east-west lines between downtown rail yards and the Inland Empire; studies of inland ports, inland domestic intermodal freight terminals, container matching and dispatching to reduce empty truck trip movements; and air cargo improvements including airport ground access and development of former military bases as all-cargo or mixed-use airport facilities. Exhibit 5.8 in Chapter V shows the proposed Goods Movement projects.

REGIONAL AVIATION SYSTEM

The 2001 RTP recommends a decentralized regional aviation system. The Plan proposes development of aviation facilities where unmet demand is greatest and also where population growth is expected to be significant in order to meet demand and reduce impacts. The Plan also proposes various strategies to promote use of under-utilized facilities, including high-speed rail linkages between airports and market incentives.

In the adopted scenario (see Figure 1.5), LAX is constrained to its existing physical capacity, estimated at 78 MAP. Burbank (BUR), John Wayne (SNA) and Long Beach (LGB) are constrained to their legal or existing physical capacities. Substantial growth is forecast at El Toro (ELT) and Ontario (ONT). Market incentives have been included to disperse demand to outlying airports to the extent possible. These outlying airports include Palmdale (PMD), San Bernardino International Airport (SBD), Southern California Logistics Airport (SCI) and March Global Port (MAR).

TRANSPORTATION DEMAND MANAGEMENT

This Plan continues to place considerable emphasis on Transportation Demand Management (TDM) strategies and actions such as ridesharing, telecommuting and work at home, continued outreach and education related to available options and traveler information systems. Figure 1.6 below shows the regional ridesharing trends from SCAG's State of the Commute Survey, and much like public transportation, TDM strategies offer viable options to automobile travel and are an important element of the RTP. Specific recommendations included in this Plan are to support the maintenance of the existing carpool market share and an increase in vanpooling, continue increasing public awareness of travel options, support the development of park and ride facilities and encourage telecommunicating in lieu of travel.

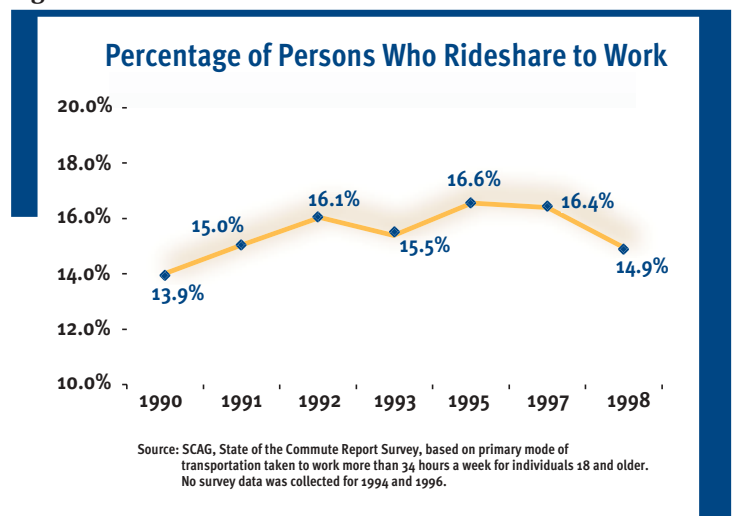
To further augment TDM strategies, it is proposed that we begin the long-term initiatives to develop accessibility to emerging activity centers by reinforcing land use and transportation connections. This could include developing more flexible transportation services that make these centers more accessible by other modes, such as scheduled vanpool and jitney services that utilize up-to-date information technology. A total of \$1.2 billion of funding is recommended for TDM, ITS, park and ride and vanpooling activities.

Figure 1.5

Aviation System (million annual passengers) (2025)	
Burbank	9*
El Toro	30
John Wayne	8
Los Angeles Int'l	78
Long Beach	3
March Global Port	2
Ontario	30
Palm Springs	3
Palmdale	2
Point Mugu	n/a
San Bernardino Int'l	2
Southern California Logistics	1
Market Incentives	yes
High-Speed Rail	yes
Total Million Annual Passengers:	167

* Airport legally or physically constrained

Figure 1.6



NON-MOTORIZED TRANSPORTATION

This Plan proposes significant investment in non-motorized transportation such as bikeways and pedestrian facilities. Specifically, the Plan proposes to invest over \$700 million in improving the non-motorized transportation network.

LAND-USE TRANSPORTATION

SCAG and other policy leaders are placing a strong emphasis on new land-use and transportation policies that will accommodate future growth while addressing transportation demand and air quality concerns. The 2001 RTP expands on the 1998 RTP's Livable Communities Program by establishing the Growth Visioning Subcommittee to develop a process that assists local, subregional and regional officials in developing additional strategies to accommodate growth.

The 2001 RTP includes a number of policies that support smart growth choices. These policies include transit-oriented development, mixed-use centers, non-motorized transportation facilities, transit improvements and private investment through Location Efficient Mortgages (LEMs).

PLAN PERFORMANCE

Table 1.6

MOBILITY AND ACCESSIBILITY PERFORMANCE RESULTS	
Performance Indicators	Improvement from 2025 Baseline to 2025 Plan
MOBILITY – Ease of movement of people, goods and services	
Work Trip Travel Time	7%
PM Peak Highway Speed:	
Freeway	15%
Non-Freeway	8%
Percent of PM Peak Travel in Delay:	
Freeway	14%
Non-Freeway	19%
ACCESSIBILITY – Ease of reaching opportunities as measured by the percent of commuters who can get to work within door-to-door 45 minutes by all modes	
Increased Work Trips within:	
45 minutes by Auto	3%
45 minutes by Transit	48%

Tables 1.6, 1.7 and 1.8 show the Plan's performance when measured against the Performance Indicators discussed earlier comparative to Baseline investment. In summary, the tables show that the 2001 RTP will improve mobility and accessibility significantly over the Baseline. For example, work trip travel time would improve by 7 percent, freeway speed during PM peak period would improve by 15 percent and transit accessibility would improve by 48 percent. Given the enormous growth the Region will experience during the Plan time period and the new travel demands that growth will place on the metropolitan transportation system, the Plan's performance is acceptable. Chapter VII discusses Plan performance in detail.

The overall investment program contained in the 2001 RTP represents a balanced multi-modal group of programs and projects that address the transportation needs projected for the future. In addition, the Plan is responsive to the need to protect and improve the environment, improving air quality, and to ensure that all of the Region's residents

Table 1.7

RELIABILITY AND SAFETY PERFORMANCE RESULTS	
Performance Indicators	Plan Improvement Over Baseline
RELIABILITY – Reasonably dependable levels of service as measured by the percent of on-time arrivals	
Transit	3%
Highway	11%
SAFETY – Transit with minimal risk of accident or injury as measured by reduced accidents	
Fatality Per Million Passenger Miles	0%
Injury Accidents	0%

and businesses have access to a transportation system that serves their respective needs. The Plan presents a realistic funding strategy that is based upon detailed analysis and consideration of many different options for raising needed revenues. Finally, the economic vitality of this Region is dependent on a transportation system that works; the recommended investments in this Plan will support the strong economic base that the Region enjoys today and relies upon for a secure future.

Reaching consensus on the difficult transportation issues this Region faces in a diverse and rapidly growing metropolitan area is a tough challenge. The 2001 RTP has broad-based support from the many constituent groups and stakeholders involved in its development. The Plan provides the framework for future transportation investment yet provides the flexibility needed to accommodate the dynamic environment in this vast metropolitan area.

Table 1.8

2001 RTP COST-BENEFIT ANALYSIS				
Project	Costs (In Billions)	Benefits (In Billions)	Net Benefits (In Billions)	Value of One Dollar Invested
2001 RTP				
(Present Value)	\$ 10.4	\$ 24.7	\$ 14.3	\$ 2.38
2001 RTP				
(Constant Dollar)	\$ 24.3	\$ 108.0	\$ 83.7	\$ 4.44